REMARKS

Claims 1-33 are pending in this application. Claims 1, 3-12, 14-22, and 24-32 stand rejected and claims 2, 13, 23, and 33 are objected to. Applicant wishes to thank the Examiner for the indication of allowable subject matter in claims 2, 13, 23, and 33. By this Amendment, claims 2, 13, 23, and 33 have been amended. The amendments made to the claims do not alter the scope of these claims, nor have these amendments been made to define over the prior art. Rather, the amendments to the claims have been made for cosmetic reasons to improve the form thereof. In light of the amendments and remarks set forth below, Applicant respectfully submits that each of the pending claims is in immediate condition for allowance.

Claims 1, 3, 4-6, 9, 10, 22, 24-27, and 30-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,570,872 ("Beshai") in view of "Minimum cost wavelength-path routing and wavelength allocation using a genetic-algorithm/heuristic hybrid approach" ("Sinclair"). Applicant respectfully requests reconsideration and withdrawal of the rejection.

Among the limitations of Applicant's independent claims not present in the cited references is "a module state database for storing module cost data of said first and second modules and cost data of other network nodes; [and] a link state database for storing link cost data of said communication links."

As described in the specification, the module state database 22 stores module status data including the status of resources of the nodes when a new node is installed and update the stored module status data when an existing module is removed or modified. It should be noted that received request message are processed by the path controller to determine and establish a path through the network according to the link and module state database. The module state database is divided into a plurality of entries corresponding to different node modules of its own node as well as the node

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modules of other nodes of the network. Each entry of the module state database 22 is divided into a plurality of fields for indicating attributes of the module such as module number, module type, and wavelength convertibility, and a path number field for indicating path numbers of the module. Likewise, the link state database such as 23, is controlled by the path controller to store a link state data of optical links of nodes. When a new link is installed as well as link state data of a link known as a forwarding adjacency link which connects the various nodes. When an existing link is removed or modified, the database 23 is controlled to update the stored link state data. Path controller 21 transmits the link state advertisement message to the network to inform neighboring nodes of the new status of the links. Therefore, the link and module status information maintained by the nodes are compared with each other to share the same knowledge of network resources.

In contrast, in Beshai, the controller maintains a matrix of the three capabilities of the module in the system. One row of the matrix stores each module's available capacity on channels connecting the module to the core and the second row of the matrix stores the available capacity on channels connected to the core in each module. When connection requests are sent from a module to the global controller, the corresponding entries in the matrix are examined. If the entry is smaller than the connection request, the connection request is placed on standby. Otherwise, the connection request is entered in a connection request view and the module state matrix is updated to reflect the use of the new request. However, Beshai fails to disclose the explicitly recited state database storing module cost data and a link state database drawing link cost data. Nowhere in Beshai does the matrix store the explicitly recited cost data of the communication links. Therefore, Applicants respectfully submit that all of the independent claims are allowable over the cited references.

Claims 2-11 13-21 23-31 and 33 ultimately depend from, and contain all the limitations of claims 1, 12, 23, and 32 and are therefore allowable for the same reasons.

Applicant has responded to all of the rejections and objections recited in the Office Action. Reconsideration and a Notice of Allowance for all of the pending claims are therefore respectfully requested.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If the Examiner believes an interview would be of assistance, the Examiner is welcome to contact the undersigned at the number listed below.

Dated: June 20, 2006   Respectfully submitted,

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